

AMENDMENTS TO THE CLAIMS

Claims 1-6 (Canceled)

7. (Currently Amended) A tubular coupling element for producing a glued joint with a fluid line, said tubular coupling element comprising:

an inner tube having [[an]] a front end and a rear end, wherein said front end is and being insertable into a fluid line;

a connecting wall secured to said end of said inner tube;

an outer tube extending from said connecting wall and being constructed having a front end and a rear end, wherein said outer tube is concentric to said inner tube; ,said outer tube, connecting wall and inner tube defining an annular gap; and

a connecting wall interconnecting said inner tube rear end and said outer tube rear end,
wherein said outer tube, said connecting wall and said inner tube define an annular gap; and

a solid ring of hot melt adhesive positioned within said insertable into the annular gap
and positioned against said connecting wall.

8. (Currently Amended) The tubular coupling element of claim 7, wherein said solid ring of adhesive ~~comprises a dry hot melt adhesive fills approximately one-half the annular gap.~~

9. (Currently Amended) The tubular coupling element of claim 7, wherein said inner tube further ~~comprises includes~~ an outer surface, ~~said outer surface including having~~ a plurality of longitudinal ribs for producing a centered contact with an inner wall of the fluid line.

10. (Currently Amended) The tubular coupling element of claim 7, wherein said outer tube further ~~comprises~~ includes an inner surface ~~including~~ having a plurality of axially parallel grooves distributed over a circumference of said inner surface, wherein said grooves ~~having~~ have peaks with an inside diameter that is larger than an outside diameter of the fluid line.

11. (Currently Amended) The tubular coupling element of claim 7, wherein a length of said outer tube is approximately equal to an outside diameter of the fluid line and said inner tube is longer than said outer tube by about one-half.

12. (Currently Amended) A tubular coupling element for producing a glued joint with a fluid line, said tubular coupling element comprising:

an inner tube having [[an]] a front end and a rear end, wherein said front end is and being insertable into a fluid line;

~~a connecting wall secured to said end of said inner tube;~~

an outer tube ~~extending from said connecting wall~~ having a front end and a rear end and having an inner surface ~~that is concentric to said inner tube, said inner surface including~~ having a plurality of axially parallel grooves distributed over a circumference of said inner surface, wherein said outer tube, ~~connecting wall and is concentric to said inner tube; defining an annular gap; and~~

a connecting wall interconnecting said inner tube rear end and said outer tube rear end, wherein said outer tube, said connecting wall and said inner tube define an annular gap; and

a solid ring of dry hot-melt adhesive positioned within said insertable into the annular gap and positioned against said connecting wall, wherein said solid ring of adhesive fills about one-half the annular gap.

13. (Currently Amended) A tubular coupling element for producing a glued joint with a fluid line, said tubular coupling element comprising:

an inner tube having an that is insertable into the fluid line wherein said inner tube includes a front end and a rear end, and an outer surface and being insertable into a fluid line, said outer surface including having a plurality of longitudinal ribs for producing a centered contact with the fluid line;

a connecting wall secured to said end of said inner tube;

an outer tube extending from said connecting wall having a front end and a rear end and having an inner surface that is concentric to said inner tube, said inner surface of said outer tube including having a plurality of axially parallel grooves distributed over a circumference of said inner surface, said grooves having peaks with an inside diameter that is larger than an outside diameter of the fluid line, wherein said outer tube, connecting wall and is concentric to said inner tube; defining an annular gap; and

a connecting wall interconnecting said inner tube rear end and said outer tube rear end, wherein said outer tube connecting wall and said inner tube define an annular gap; and

a solid ring of dry hot-melt adhesive positioned within said insertable into the annular gap and positioned against said connecting wall, wherein said solid ring of adhesive fills about one-half the annular gap.

14. (Currently Amended) A method for producing a glued joint between a tubular coupling element and a fluid line, said method comprising the steps of:

providing a tubular coupling element including an inner tube ~~that has an~~ having a front end and a rear end, and the front end is insertable into a fluid line, a connecting wall secured to said end of said the inner tube rear end and an outer tube having a front end and a rear end, and extending from said the connecting wall, wherein the outer tube is and being constructed concentric to said the inner tube, said and the inner tube, outer tube and connecting wall defining define an annular gap;

providing a solid ring of hot melt adhesive;

positioning said pressing the solid ring of adhesive in said the annular gap against the connecting wall, wherein the solid ring of adhesive fills about one-half the annular gap;

applying heat to said the tubular coupling element so as to melt said the solid ring of adhesive;

inserting said a free end of said the fluid line into said the melting adhesive in the annular gap such that said free end contacts said ring of the melting adhesive flows around the free end of the fluid line to fill an intermediate space between the free end of the fluid line and the coupling element.

15. (Currently Amended) The method of claim 14, wherein said the solid ring of adhesive ~~comprises a dry hot melt adhesive has an inside diameter corresponding to an inside diameter of the fluid line, and an outside diameter slightly smaller than an inside diameter of the outer tube.~~

16. (Currently Amended) The method of claim 14, further comprising the steps of providing using an induction coil; and preheating to preheat a free end of said the fluid line with said induction coil and melt the solid ring of adhesive.

17. (Currently Amended) The method of claim 16, wherein said the free end of said the fluid line is pushed onto said the coupling element together with the induction coil.

18. (Currently Amended) A method for producing a glued joint between a tubular coupling element and a fluid line, said method comprising the steps of:

providing a tubular coupling element including an inner tube that has an having a front end, a rear end, and an outer surface, and the front end is insertable into a fluid line, said wherein the outer surface including includes a plurality of longitudinal ribs for producing a centered contact with said an inner wall of the fluid line, a connecting wall is secured to said the rear end of said the inner tube, and an outer tube having a front end and a rear end extending from said the connecting wall that is concentric to said the inner tube and has an inner surface including a plurality of axially parallel grooves distributed over a circumference of said the inner surface, said wherein the outer tube, inner tube and connecting wall defining define an annular gap; and

providing a solid ring of hot melt adhesive;

positioning said pressing the solid ring of adhesive in said the annular gap against the connecting wall, wherein the solid ring of adhesive fills about one-half the annular gap;

applying heat to said the tubular coupling element so as to melt said the solid ring of adhesive; and

inserting said a free end of said the fluid line into said the melting adhesive in the annular gap such that said free end contacts said the melting ring of adhesive and flows around the free end of the fluid line such that a small portion of said the adhesive is pressed flows between said the fluid line and said the inner tube and a predominant portion of said the adhesive is pressed flows between said the fluid line and said the outer tube.

19. (New) The method of claim 18, wherein the solid ring of adhesive has an inside diameter corresponding to an inside diameter of the fluid line, and an outside diameter slightly smaller than an inside diameter of the outer tube.

20. (New) The method of claim 18, further comprising the steps of using an induction coil to preheat a free end of the fluid line and melt the solid ring of adhesive.

21. (New) The method of claim 20, wherein the free end of the fluid line is pushed onto the coupling element together with the induction coil.